FORM U-1 MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by Fabricated Products, Inc., 7900 Pence Road, Charlotte, NC 28215
(Name and address of Manufacturer)

2. Manufactured for LCI Corporation, P.O. Box 16348, Charlotte, NC 28297-8804
(Name and address of Purchaser)

3. Location of Installation Rohm & Haas Bayport, Inc., 13300 Bay Area Boulevard, Laporte, TX 77571
(Name and address)

4. Type: Vertical Tank (Horiz., vert., or sphere) | Evaporator (Tank, separator, htr. vessel, heat exh., etc.) | 271-94 (Mfg's serial No.)

na (CRN) | LE-361 (Drawing No.) | 1511 (Nat'l. Bd. No.) | 1995 (Year built)

5. ASME Code, Section VIII, Div. 1: 1992 Edition A92 Addenda (Edition and Addenda dates) | na (Code Case No.) | na (Special Service per UG-120(d))

Items 6-11 incl. to be completed for single wall vessels, jackets of jacketed vessels, shell of heat exchangers, or chamber of multi-chamber vessels.

6. Shell (a) No. of course(s): 1 (b) Overall length (ft & in.): 5'-10"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter, in.	Length (ft & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	22" OD	5'-10"	SA516G70	3/8"	.06"	1	none	70%	2	none	65%	na	na

7. Heads: (a) na (Mat'l Spec. No., Grade or Type) H.T. – Time & Temp. (b) na (Mat'l Spec. No., Grade or Type) H.T. – Time & Temp.

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	na	na	na	na	na	na	na	na	na	na	na	na	na	na
(b)	na	na	na	na	na	na	na	na	na	na	na	na	na	na

If removable, bolts used (describe other fastening) na (Mat'l Spec. No., Grade, size, No.)

Type of jacket Fig. 9-2 Type 1 Jacket closure Fig. 9-5 (g-1) (Describe as edge & weld, bar, etc.)

If bar, give dimensions 1 5/16" X 2" If bolted, describe or sketch.

9. MAWP 200 (internal) FV (external) psi at max. temp. 400 (internal) 400 (external) °F Min. design metal temp. -20 °F at FV/200 psi.

10. Impact test no (Indicate yes or no and the component(s) impact tested)

11. Hydro., pneu., or comb. test press. 300 Proof test na

Items 12 and 13 to be completed for tube sections.

12. Tubesheet: na (Stationary (Mat'l Spec. No.)) | na (Dia., in. (subject to press.)) | na (Nom. thk., in.) | na (Corr. Allow., in.) | na (Attachment (welded or bolted))

na (Floating (Mat'l Spec. No.)) | na (Dia., in.) | na (Nom. thk., in.) | na (Corr. Allow., in.) | na (Attachment)

13. Tubes: na (Mat'l Spec. No., Grade or Type) | na (O.D., in.) | na (Nom. thk., in. or gauge) | na (Number) | na (Type (Straight or U))

Items 14-18 incl. to be completed for inner chambers of jacketed vessels or channels of heat exchangers.

14. Shell (a) No. of course(s) 5 (b) Overall length (ft & in.): 11'- 5 7/8"

Course(s)			Material	Thickness		Long. Joint (Cat. A)			Circum. Joint (Cat. A, B, & C)			Heat Treatment	
No.	Diameter, in.	Length (ft & in.)	Spec./Grade or Type	Nom.	Corr.	Type	Full, Spot, None	Eff.	Type	Full, Spot, None	Eff.	Temp.	Time
1	18 7/8"OD	2'-1"	SA240 316L	1/4"	0"	1	none	70%	1, 2	none	70%,65%	na	na
2	19 1/4"OD	6'-0"	SA516G70	7/16"	0"	1	none	70%	2	none	65%	na	na
3	18 3/4"OD	0'- 5 23/32"	SA240 316L	5/16"	0"	1	none	70%	2, 1	none	70%,65%	na	na

15. Heads: (a) SA240 316L (Mat'l Spec. No., Grade or Type) H.T. – Time & Temp. (b) SA240 316L (Mat'l Spec. No., Grade or Type) H.T. – Time & Temp.

	Location (Top, Bottom, Ends)	Thickness		Radius		Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure		Category A		
		Min.	Corr.	Crown	Knuckle					Convex	Concave	Type	Full, Spot, None	Eff.
(a)	Bottom	1/4"	0"	na	na	na	60°	na	na	yes	yes	1	none	70%
(b)	Top	15/16"	0"	na	na	na	na	na	26.31"	flat	flat	na	na	100%

If removable, bolts used (describe other fastening) (16) 5/8" dia. studs SA19387, (16) 5/8" dia. nuts SA1942H (Mat'l Spec. No., Grade, size, No.)

FORM U-1 (Back)

16. MAWP 15 (internal) FV (external) psi at max. temp. 400 (internal) 400 (external) °F. Min. design metal temp. -20 °F at 15/FV psi.

17. Impact test no
(Indicate yes or no and the component(s) impact tested)

Hydro., pneu., or comb. test press. 23 Proof test na

19. Nozzles, Inspection, and safety valve openings:

Purpose (Inlet, Outlet, Drain, etc.)	No.	Diameter or Size	Flange Type	Material		Nozzle Thickness		Reinforcement Material	How Attached		Location (Rad. Open.)
				Nozzle	Flange	Nom.	Corr.		Nozzle	Flange	
Vapor Outlet	1	12"	CL150FLG	*	SA105	3/16"	0"	SA240316L	welded	welded	shell
Handway	1	6"	CL150PAD	na	*	na	0"	na	na	welded	shell
Product Outlet	1	3"	CL150FLG	**	**	.216"	0"	na	welded	integral	bot. head
Rotor Opening	1	2 11/16"	****	na	*	na	0"	na	na	integral	top head
Product Inlet	2	2"	CL150FLG	***	**	.154"	0"	na	welded	welded	shell
H.M. Inlet	1	2"	CL150FLG	SA106B	SA105	.218"	0"	na	welded	welded	jacket
H.M. Outlet	1	1 1/2"	CL150FLG	SA106B	SA105	.200"	0"	na	welded	welded	jacket

20. Supports: Skirt ____ (Yes or no) Lugs ____ (No.) Legs ____ (No.) Others gusseted mount plate (Describe) Attached welded to shell (Where and how)

21. Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report:
(List the name of part, item number, mfg's. name and identifying number)

22. Remarks: User to provide a safety relief device in line per UG-125 footnote 39
See attached Form U-4 for additional details
Exempt from impact testing per UCS-66a and UHA-51

Legend: * SA240 316L, ** SA182F316L, *** SA312TP316L, **** Bolt connection for Rotor Bearing Housing attachment

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

U Certificate of Authorization No. 10,264 Expires 1-15 , 19 98

Date 2-14-95 Name Fabricated Products, Inc. (Manufacturer) Signed Dennis Simpson (Representative)

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of NC and employed by The North Carolina Department of Labor of North Carolina have inspected the pressure vessel described in this Manufacturer's Data Report on 2-14 , 19 95 , and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 2-14-95 Signed Steven D Clay (Authorized Inspector) Commissions NC#1230 NB#10508 (A)(B) (Nat'l Board incl. endorsement, State, Province and No.)

CERTIFICATE OF FIELD ASSEMBLY COMPLIANCE

We certify that the statements on this report are correct and that the field assembly construction of all parts of this vessel conforms with the requirements of ASME Code, Section VIII, Division 1.

U Certificate of Authorization No. ____ Expires ____ , 19 ____

Date ____ Name ____ (Assembler) Signed ____ (Representative)

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of ____ and employed by ____ of ____ have compared the statements in this Manufacturer's Data Report with the described pressure vessel and state that parts referred to as data items ____ , not included in the certificate of shop inspection, have been inspected by me and to the best of my knowledge and belief, the Manufacturer has constructed and assembled this pressure vessel in accordance with ASME Code, Section VIII, Division 1. The described vessel was tested and subjected to a hydrostatic test of ____ psi. By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date ____ Signed ____ (Authorized Inspector) Commissions ____ (Nat'l Board incl. endorsement, State, Province and No.)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by: Fabricated Products, Inc., 7900 Pence Road, Charlotte, NC 28215 (Name and address of Manufacturer)

2. Manufactured for: LCI Corporation, P.O. Box 16348, Charlotte, NC 28297-8804 (Name and address of Purchaser)

3. Location of Installation: Rohm & Haas Bayport, Inc., 13300 Bay Area Boulevard, Laporte, TX 77571 (Name and address)

4. Type: Vertical Tank (Horiz., vert., or sphere) | Evaporator (Tank, separator, heat exh., etc.) | 271-94 (Mfg's. serial No.)

na (CRN) | LE-361 (Drawing No.) | 1511 (Nat'l. Bd. No.) | 1995 (Year built)

Data Report Item Number	Remarks
Item 14 Shell Continued:	
	Course No. 4- 18 5/8" OD small end X 26 1/8" OD large end X 6 19/32" axial length transition fabricated of SA240 316L material 1/4" nominal thickness with 0" corrosion allowance. Longitudinal seams are Type 1, no radiography, 70% joint efficiency. Circumferiential seams are Type 1, no radiography, 70% joint efficiency, no heat treatment.
	Course No. 5- 26" OD X 28 9/16" long cylinder fabricated of SA240 316L material 3/16" nominal thickness with 0" corrosion allowance. Longitudinal seam is Type 1, no radiography, 70% joint efficiency. Circumferential seam is type 1 on one end, no radiography, 70% joint efficiency. Circumferential seam is Type 2 on other end, no radiography, 65% joint efficiency, no heat treatment .
Item 19 Nozzles Continued:	
	Lubricant Connection (1) 3/8" dia. threaded full coupling, SA182F316L material, 3000# nominal thickness, no reinforcement, welded to shell

Certificate of Authorization: Type "U" No. 10,264 Expires 1-15 , 19 98

Date 2-14-95 Name Fabricated Products, Inc. (Manufacturer) Signed Dennis Simpson (Representative)

Date 2-14-95 Name (Authorized Inspector) Commission NC#1230 NB#10508 (A)(B) (Nat'l Board incl. endorsement, State, Province and No.)